

Potential Effects of Masking, Quarantine, Treatment, and Vaccines on Swine Flu

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In spring 2009, a novel strain of influenza A (H1N1), commonly referred to as “swine flu,” spread rapidly across the world. We developed the novel SQIRTM model to simulate swine flu in Shelby County to determine the potential effect of masking and vaccination on cumulative seasonal influenza infections. We ran simulations comparing varying onsets of mask enforcement simulating a government enforced mask mandate and varying proportions of the population who are vaccinated before the onset of initial infection. Our results suggest that some masking mandate strategies and pre-vaccination levels would be able to reduce cumulative seasonal influenza infections. Consequently, our model results suggest that masking, when done properly, and vaccination can be an extremely effective way of preventing infections and potentially stopping a pandemic from developing.